Tulsa Land Use Productivity

Urban Data Pioneers
Land Use Team

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• With assistance from
  • Ty Simmons (INCOG)
  • Josh Wise and Matt Parsell (City of Tulsa GIS)
Farming the city
Understanding the yield of various development patterns
Property Tax

• Parcel shape files from INCOG and City of Tulsa
• Calculated estimated 2016 tax based on tax rate code
• Symbolized a graduated color scheme based on tax revenue/gross acres
• Extruded the results of each parcel as the polygon’s elevation
Tulsa Property Tax per Acre
Tulsa Property Tax per Acre
Sales Tax

• Confidential nature was a challenge
• Need to maintain individual business tax remittance anonymity
• Geocoded locations of 14,000 sales tax permits
• Spatially joined Census Tracts
• Treasury provided 2016 sales tax via Census Tract
• Applied average to multiple permit holders’ locations
Sales Tax Permit Vendor Addresses
Sales Tax per Tract

These amounts are associated with vendor’s permitted address and do not always reflect the exact location a sale is made.
Sales Tax per Acre

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Productivity of development types

Which development types yield more per acre?
Home Depot – 901 S Elgin Ave

Land consumed: 10.9 acres
Property Tax: $8,688/acre
Sales Tax (ea. $10k): $917/acre
El Guapo’s South – 8161 S Harvard Ave

Land consumed: 1.7 acres
Property Tax: $9,058/acre
Sales Tax (ea. $10k): $5,805/acre
Cityplex Towers – 2408 E 81st St

Land consumed: 46.6 Acres
Property Tax: $9,313/acre
Sales Tax (ea. $10k): $214/acre
QuikTrip – 1022 S Utica Ave

Land consumed: 2.8 acres
Property Tax: $11,689/acre
Sales Tax (ea. $10k): $3,518/acre
Costco Wholesale – 10220 S Memorial Dr.

Land consumed: 17.2 acres
Property Tax: $14,018/acre
Sales Tax (ea. $10k): $583/acre
Tulsa Hills – 7336 S Olympia Ave

Land consumed: 141.8 acres
Property Tax: $14,300/acre
Sales Tax (ea. $10k): $71/acre
Woodland Hills Mall – 7021 S Memorial Dr

Land consumed: 75.5 acres
Property Tax: $32,279/acre
Sales Tax (ea. $10k): $132/acre
Trader Joe’s – 3702 S Peoria Ave

Land consumed: 1.5 acres
Property Tax: $40,033/acre
Sales Tax (ea. $10k): $6,620/acre
Triangle Building – 314 S Cincinnati Ave

Land consumed: 0.09 acres
Property Tax: $89,764/acre
Sales Tax (ea. $10k): $107,296/acre
East Village Bohemian Pizza – 816 E 3rd St

Land consumed: 0.04 Acres
Property Tax: $152,821/acre
Sales Tax (ea. $10k): $229,358/acre
Orpha’s Lounge – 112 W 4th St

Land consumed: 0.07 acres
Property Tax: $157,794/acre
Sales Tax (ea. $10k): $145,138/acre
El Guapo’s Downtown – 332 E 1st St

Land consumed: 0.06 acres
Property Tax: $215,418/acre
Sales Tax (ea. $10k): $174,216/acre
El Guapo’s South – 8161 S Harvard Ave

Land consumed: 1.7 acres
Property Tax: $9,058/acre
Sales Tax (ea. $10k): $5,805/acre
Mid-Continent Tower
401 S Boston Ave

Land consumed: 0.32 acres
Property Tax: $825,470/acre
Sales Tax (ea. $10k): $31,114/acre
Home Depot – 901 S Elgin Ave

Land consumed: 10.9 acres
Property Tax: $8,688/acre
Sales Tax (ea. $10k): $917/acre
If Costco generates $10 million in sales tax, 17.2 acres = $581,400 per acre

El Guapo’s needs to generate $35,000 in sales tax for same per acre productivity, 0.06 acres = $581,400 per acre
If El Guapo's generates $100,000 in sales tax:

\[
\frac{\$100,000}{0.06 \text{ acres}} = \$1,666,666 \text{ per acre}
\]

Costco needs to generate $28.7 million in sales tax for the same per acre productivity:

\[
\frac{\$28,666,655}{17.2 \text{ acres}} = \$1,666,666 \text{ per acre}
\]
Further Investigation

- Characteristics of highly productive land use over time
- Does our zoning code make it easy to build productive places?
- 21st & Yale
- Land Tax vs Improvements Tax
- Cost of Infrastructure & Services
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Lessons Learned

Geocoding - getting a latitude and longitude coordinate from street address

Use the dissolve geoprocessing tool on condo parcels (i.e. Liberty Tower)

Data binning (parcel, census blocks, tracts, hex grids?)

Impossible to determine location of each sale
- 48% of remittances (10% of sales tax collected) can’t be tied to a permit
- Sales tax is applied at the point of delivery
  - Not necessarily the permit holder’s address
Next Steps

Geo-account revenue AND expenses

Net cash flow model of Lafayette Parish (County), Louisiana
black=municipal tax exceeds maintenance cost
red=municipal taxes fall short of maintenance cost
#10: 71st & Garnett

$6,400/acre
#9: 71st & Mingo

$7,100/acre
$7,700/acre

#8: Admiral (Delaware/Harvard)
#7: Utica Square

$7,900/acre
#6: Downtown (SE)/Peoria/Pearl

$13,100/acre
#5: Cherry Street / 15th & Lewis

$19,800/acre
#4: 71st & Memorial

$20,700/acre
#3: Tulsa Hills

$25,000/acre
$36,200/acre

#2: Downtown (north)
$40,000/acre

#1: 21st & Yale